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MAR 14 2007

From: Command Information Officer, Naval Supply Systems Command

Subj: NAVY ORDNANCE RADIO FREQUENCY IDENTIFICATION (RFID)  
IMPLEMENTATION INITIATIVE

Ref: (a) USD(AT&L) Memo/Radio Frequency Identification (RFID)  
Policy of 30 Jul 2004  
(b) OPNAV N41 Memo Navy RFID Implementation Plan  
of 14 Feb 2005

1. This letter solicits your Command's assistance and active involvement in the development of a consolidated Navy ordnance RFID implementation strategy that will achieve appropriate and timely compliance with the DOD RFID mandates set within reference (a), the current RFID policy for the Department of Defense (DOD) which describes how RFID will be institutionalized as a standard way of doing business within the DOD supply chain.

2. Reference (a) directs that DOD components immediately resource and implement the use of high data capacity active RFID (aRFID) in the DOD operational environment. Detailed guidance on the implementation of passive RFID (pRFID) capability, and the data constructs for these new tags, including Electronic Product Code (EPC) are also defined. Finally, reference (a) directs that components incorporate DOD RFID policy into Service/Agency level publications and component strategies in order to achieve compliance within the DOD Business Enterprise Architecture - Logistics (BEA-LOG). The Navy is not yet in full compliance with this policy due to a number of safety concerns that must be addressed before an acceptable means of RFID deployment and the projected cost can be determined.

3. The NAVSUP/CIO Navy Automatic Identification Technology (AIT) office is the lead for development and execution of the Navy RFID Implementation Plan (reference (b)). However, RFID implementation details for ordnance material have not yet been adequately included. For example, reference (a) directs that commencing 1 Jan 2007, all individual cases, cases packaged within palletized unit loads, all palletized unit loads, and all unit packs for unique identification (UID) items, for all DOD commodities shipped to any location, will have a pRFID tag.

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There are two exceptions: (1) bulk commodities (those shipped in rail tank cars, tanker trucks, trailers, other bulk wheeled conveyances), or pipelines, and (2) because of special safety, security and condition monitoring requirements, the RFID tagging of Ammunition of all types must be phased in, pending appropriate safety and security certifications, and verification of its compatibility with existing and planned RFID equipment in all ordnance configurations and operational environments.

4. In order to safely implement RFID within the Navy, the Navy must conduct a comprehensive and coordinated effort, that takes into consideration the technical complexities and respective organizational responsibilities introduced by ordnance. It is imperative that our strategy result in the cost-effective enhancement of the Navy's ordnance asset visibility and condition monitoring, while ensuring that our ordnance stockpile is handled, stored, and processed in a safe and secure manner throughout the supply chain and during the entire life cycle of each item.

5. Many Navy RFID implementation issues must be resolved and are under review:

- Standardization of the Navy RFID infrastructures for all commodities, and achieving compatibility with global DOD RFID infrastructure.
- RFID tags, devices and infrastructure in the various shipboard platforms will require:
  - Electromagnetic compatibility analysis to quantify the mutual effects of RFID devices within all intended operational environments.
  - Hazards of Electromagnetic Radiation to Ordnance (HERO) certification of both aRFID and pRFID equipment that is available and under consideration for use in proximity to ordnance.
  - Impact to/from RFID equipment and ships systems from Electronic Static Discharge (ESD) during underway replenish and retrograde operations.
- Emerging item/case/pallet management and associated functional requirements (e.g. condition monitoring, shock, temperature, tampering using sensors).

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- Incrementally lower equipment cost that will positively impact ROI calculations.
- Wireless networking opportunities and restrictions.
- Standardization of middleware for shipboard use that can interpret and communicate data from all authorized AIT media (e.g., Barcode, RFID, etc.) to create a single AIT interface with all ships systems.
- Ordnance data element requirements for supply chain functional requirements.
- Data encryption requirements for specified data streams.
- Business processes affected by the new logistics demands of Seabasing.
- Compatibility with the planned integrated ERP environment where interoperability of systems, hardware and software will be essential.

6. In order to make progress toward resolution of these issues and the achievement of consensus among the Navy ordnance community, several initiatives are underway or planned that will have an impact on the RFID ordnance application decisions. These include:

- Establishment of the Navy AIT Engineering Support Center (ESC) as the technical arm of the Navy AIT Program Office. The ESC services are available to the Navy ordnance community at no cost to the customer.
- Establishment of the Ordnance RFID Integrated Product Team (IPT) to review ordnance RFID requirements and the implementation strategy document for inclusion into the Navy Implementation Plan. NOLSC-AMMO chairs the IPT that includes members from the organizations in the distribution below.
- The Ordnance RFID (IPT) reports to the Joint Ordnance Commander's Group (JOCG) RFID Steering Group, the Director of NOLSC Ammo and the office of the NAVSUP CIO.
- Establishment of the Ordnance RFID Working Group (WG) to gather and document requirements for development of the implementation strategy document to be reviewed by the Ordnance RFID IPT members. NOLSC-AMMO chairs the WG that includes NOLSC, NAVSUP, NAVSISA, End Users and ESC membership. Other components will be invited to

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participate, as necessary, to accomplish the goals and objectives of the IPT.

- Ongoing Research, Development, Testing and Evaluation (RDT&E) projects funded to develop "near touching" safe separation distance stand off for pRFID readers to ordnance.
- The Ordnance RFID IPT participates in the development and evaluation of RDT&E proposals for funding to support initial implementation.
- Ongoing Navy packaging initiatives to address RF field challenges that will adequately protect ordnance items in the majority of RF environments.

7. My staff is currently assisting in gathering Ordnance requirements as set forth in the action items from the Navy Ordnance RFID Strategy meeting held at NOLSC-Ammo on 30 Jan 2007. Members of the Navy AIT Office, ESC, Ordnance RFID IPT and WG will be engaged with the designated POCs of your organizations to discuss the issues delineated above and other ordnance RFID-related issues or concerns that you or your staff may have in the draft strategy document preparation.

8. In order to facilitate uniformity within the ordnance business processes and AISSs, COMNAVSUPSYSCOM, the NAVSUP CIO and Navy AIT Program Offices request that all AIT-related requirements for Class V material management be coordinated through the Ordnance RFID IPT as directed by the Director, NOLSC-Ammo, Code 41, Mechanicsburg, PA, CAPT J. E. Marler, Jr. The CIO/Navy AIT action officer is Ms. Lorrey Bentzel, (717) 605-6724, email: lorrey.bentzel@navy.mil.

9. We welcome and anticipate your support as we move forward to capture, define and document ordnance requirements supporting DOD and Navy RFID Implementation Plans. Request widest dissemination of this letter to all ammunition reporters and all subordinate commands.

  
KAREN L. GALBOIS

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